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NEW AMERICAN LYCOSIDAE WITH NOTES ON OTHER SPECIES

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The types of the new species described below are deposited in the collection of The American Museum of Natural History.

PARDOSA C. KOCH

Pardosa sagei, new species

Figures 1 and 2

MALE.—Total length, 5.40 mm. Carapace, 2.90 mm. long, 2.10 mm. wide. Carapace light to dark brown, with a pale median dorsal stripe which is narrowest on the posterior declivity, is expanded around the dorsal groove, is constricted in front of the groove and then is abruptly expanded again to become as wide as the distance between the posterior eyes, projecting forward into and blending with the black of the ocular region. Sides of the carapace with a more or less serrate yellowish submarginal band. Clypeus and sides of the head yellowish, the clypeal margin tinged with black. The extent of the light areas varies in the paratypes, particularly in the males. Dorsum of the abdomen dark except for a reddish hastate marking which is followed by a white maculation. Venter of the abdomen, sternum, mouth parts, coxae and ventral surfaces of the legs yellowish, with a scanty dark maculation. Dorsal surfaces of the femora banded. Palpi provided with a dense brush of black hairs on all joints except the dorsal surfaces of the patellae and femora. In some males the venter of the abdomen is almost black and all the joints of the palpi are black. The white hairs on the patellae of the palpi are usually present and are particularly striking in the living spiders. Chelicerae, 1.10 mm. long.

Posterior eye quadrangle wider than long (1.30 mm./0.90 mm.), the posterior median eyes (second row) larger than the posterior laterals (posterior row) in the ratio of 40:35. Anterior row of eyes narrower than the second row (0.70 mm./1.00 mm.), moderately procurved, the median eyes larger than the laterals, the eyes about equidistantly spaced. Clypeus, 0.40 mm., about equal in height to the diameter of a posterior median eye.

Leg formula, 4123, the lengths of the legs in that order, 11.50 mm., 8.80 mm., 8.25 mm., 8.10 mm. Tibia and patella of the first leg, 3.10 mm., of the fourth leg, 3.40 mm. long.

FEMALE.—Total length, 6.40 mm. Carapace, 3.00 mm. long, 2.40 mm. wide. Color and pattern essentially as in the male but the legs are more distinctly annulated, the annulations on the femora, tibiae and metatarsi. Posterior eye quadrangle wider than long (1.30 mm./1.00 mm.), the eyes of the second row larger than the posterior eyes (0.50 mm./0.40 mm.). First row of eyes narrower than the sec-

ond (0.75 mm./1.10 mm.), slightly procurved, the median eyes larger than the laterals. Clypeus, 0.50 mm.

Leg formula, 4123, the lengths of the legs in that order, 12.10 mm., 8.90 mm., 8.40 mm., and 8.30 mm. long, respectively. Tibia and patella of the first leg, 3.20 mm., of the fourth leg, 3.80 mm. long.

TYPE LOCALITY.—Male holotype, female allotype and male and female paratypes from around the lakes near Miller's Ranch, El Volcan, Chiriqui, Panama, February 26, 1936 (W. J. Gertsch). Numerous paratypes of both sexes taken at this same locality during late February and early March, 1936 (W. J. Gertsch).

This species is a representative of the complex of forms of which Pardosa *pauxilla* Montgomery, *delicatula* Gertsch and Wallace and *bellona* Banks are examples. It may be separated from these forms by reference to the genitalia, in the male particularly by the shape of the median apophysis of the palpus.

Pardosa chiapasiana, new species

Figure 3

Pardosa delicata GERTSCH, 1934, American Museum Novitates, No. 693, p. 20 (male allotype, not female holotype).

MALE.—Carapace, 2.10 mm. long, 1.70 mm. wide.

The specimen is in poor condition, the abdomen and some of the legs being lost. Carapace dark brown to black, with a wide median longitudinal pale stripe which does not extend between the eyes and with a submarginal denticulate pale band on each side. Eye region black. Sternum, coxae, labium and endites yellow. Last leg all yellow. Clypeus and chelicerae black. All the joints of the palpus dark.

Structure essentially as in other species of the genus. Posterior eye quadrangle wider than long (1.00 mm./0.80 mm.), the eyes of the second row larger than the posterior eyes (0.40 mm./0.30 mm.). Anterior row of eyes narrower than the second row (0.80 mm./0.60 mm.), moderately procurved, the median eyes larger than the laterals, the eyes equidistantly spaced. Clypeus scarcely as high as the diameter of an eye of the second row. Tibia and patella of the fourth leg, 2.00 mm. Male palpus as figured.

TYPE LOCALITY.—Male holotype from La Zacualpa, Chiapas, Mexico, August, 1909 (Dr. Alexander Petrunkevitch), in the collection of The American Museum of Natural History.

This species is characterized particularly by the palpus which has a general resemblance to those of *Pardosa sternalis* (Thorell) and *P. saxatilis* (Hentz). From both of these it differs in having a more slender scopus (median apophysis) which is curved and greatly narrowed in the terminal portion. The single specimen was erroneously placed as the male of *Pardosa delicata* Gertsch, a species which is more properly associated with *Pardosa delicatula* Gertsch and Wallace, *P. pauxilla*

Montgomery, etc., and the male of which will probably resemble the species of that group.

Pardosa floridana Banks

Pardosa littoralis Banks, 1896, Journal New York Entomological Society, IV, p. 192.

Pardosa floridana Banks, 1904, Proc. Acad. Nat. Sci. Philadelphia, p. 136, Pl. vii, fig. 1, Pl. viii, fig. 15.

Pardosa banksi Chamberlin, 1904, Canadian Entomologist, XXXVI, p. 175. (New name for *littoralis* Banks, preoccupied.)

Pardosa ocala Bryant, 1935, Psyche, XLII, p. 81, Pl. v, fig. 12.

This spider is a common form along the Atlantic coast from Long Island, New York, to Florida, and also occurs in Cuba. A careful study of a cotype of *Pardosa ocala* has convinced us that the characters on which this name was based are not specific.

Pardosa orophila Gertsch

Pardosa orophila Gertsch, 1933, American Museum Novitates, No. 636, p. 28, Fig. 45.

Pardosa yavapa Gertsch and Wallace, 1935, American Museum Novitates, No. 794, p. 3, Fig. 9. (Not *yavapa* Chamberlin, Figs. 2 and 6.)

Record.—Six miles south of Whiteriver, Arizona, July 31, 1936, four females (Hustace H. Poor and Frank G. Watson).

The two previously known examples of this small species were thought to represent aberrant specimens of *Pardosa yavapa* Chamberlin, a widely distributed species of the southwestern United States. However, the acquisition of additional material (mature females with egg sacs) shows that the important differences in the epigynum are constant. The male is unknown but will undoubtedly resemble the males of *Pardosa yavapa* Chamberlin and *P. montgomeryi* Gertsch.

Arctosa C. Koch

Arctosa floridiana (Banks)

Trochosa floridiana Banks, 1893, Trans. American Ent. Soc., XXIII, p. 72.

Lycosa floridiana Chamberlin, 1908, Proc. Acad. Nat. Sci., Philadelphia, p. 283.

Arctosa seminola Petrunkevitch, 1911, Bull. American Museum Nat. Hist., XXIX, p. 552.

Arctosa absoluta Gertsch, 1934, American Museum Novitates, No. 726, p. 9, Fig. 1.

The male of this species was described and figured for the first time as *Arctosa absoluta* by Gertsch. It is a widely distributed form in the southeastern United States and has been taken as far west as western Texas. The carapace is often pale and marked with two

longitudinal dark bands but in many examples the pale stripes are completely obliterated by dusky chromatism, leaving the whole carapace nearly black.

Arctosa paraguensis, new species

Figure 10

MALE.—Total length, 3.85 mm. Carapace, 2.15 mm. long, 1.40 mm. wide.

Carapace dark brown, marked with a few pale streaks above, clothed sparsely with gray hairs. Sternum and coxae pale yellow, the labium and endites dusky, clothed with fine black hairs. Chelicerae dark brown, set with fine long hairs. First two femora dark brown, the distal joints of the first two pairs of legs pale yellow. Third femur dark brown, the patella and tibia annulate in brown, the distal joints of the third leg dusky yellow. Fourth femur dark brown, the patella, tibia and metatarsus distinctly annulate in brown, the tarsus pale yellow. Clothing of the legs black hairs and strong spines. Abdomen dark on the sides, the dorsum with a yellow median longitudinal band which is narrowed behind and which encloses a dark basal hastate marking. Venter of the abdomen dusky yellow.

Carapace longer than broad, narrowed in front, the width at the last eye row more than half the greatest width (43/70). Carapace moderately high, equal in height back to the longitudinal median groove, the posterior declivity declining moderately. Eyes of the first row weakly procurved, a line along the lower margins of the medians cutting the centers of the laterals, the medians separated by about their radius, one-third as far from the subequal laterals. Clypeus equal in height to two-thirds the diameter of an anterior median eye. Second eye row wider than the first (5/4), the eyes separated by their diameter. Third row of eyes three-fourths as wide as the head at that point, the eyes separated by two and one-half times their diameter Dorsal eye quadrangle broader than long (60/45), narrowed in front (60/50), the anterior eyes larger. Chelicera nearly three times as long as broad, the lower margin armed with three subequal teeth. Sternum longer than broad (50/40). Labium as broad as long.

Leg formula, 4123. Tibiae and metatarsi with 2–2–2 ventral spines. First tibia unarmed above, the third and fourth tibiae with a weak basal and a stronger median spine.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	1.13	0.60	0.90	1.00	0.70	4.33 mm.
II	1.05	0.58	0.75	0.92	0.56	3.86 mm.
III	1.05	0.55	0.65	1.05	0.55	3.85 mm.
IV	1.42	0.73	1.15	1.63	0.75	5.68 mm.

Palpus similar in structure to other species of the genus, differing chiefly in the details of the apophyses of the bulb. The terminal apophysis is a curved lobe which is directed toward the median apophysis and ends in a short hook. The median apophysis is a strong black hook which curves ventrad and, unlike comparable species of the genus, lacks an accessory ventral spur.

TYPE LOCALITY.—Male holotype from Taquarapa, Alto Parana, Paraguay (Fiebig, collector).

This small species is equivalent structurally to most of the other species of the genus, particularly those previously referred to *Allocosa,* but is easily separated by the details of the palpus and the distinctive color pattern.

PIRATA SUNDEVALL

Pirata piratica (Olivier)

Araneus piraticus CLERCK, 1757, 'Svenska Spindl.,' p. 102, Pl. v, tab. 4.

Aranea piratica OLIVIER, 1789, 'Encyclopedie Methodique,' IV, p. 218.

Pirata prodigiosa KEYSERLING, 1876, Verh. Zool.-Bot., Gesell. Wien, XXVI, p. 669, Pl. II, fig. 2.

Lycosa febriculosa BECKER, 1881, 'Comptes-Rendus Soc. Entom. Belgique,' p. xlv, Pl. II, fig. 2.

Lycosa wacondana SCHEFFER, 1904, Entomological News, Philadelphia, XV, p. 260, Pl. XVII, fig. 7.

Pirata piraticus var. *utahensis* CHAMBERLIN, 1908, Proc. Acad. Nat. Sci., Philadelphia, p. 313.

Pirata febriculosa, CHAMBERLIN, 1908, idem, p. 311, Pl. XXII, fig. 1, and Figs. 1 and 2.

The name of the common European spider, *Pirata piratica* (Olivier), was first applied to an American species in 1885 by Emerton who erroneously identified it with a form subsequently described as *marxi* by Stone. A study of authentic examples of *piratica,* kindly sent to us by Dr. E. Schenkel of Basel, Switzerland, shows that the species is identical with *Pirata febriculosa* Becker. The synonomy is given above.

HESPEROCOSA, NEW GENUS

A genus of the subfamily Lycosinae.

Carapace much longer than wide, the pars cephalica broad, weakly rounded on the sides, seven-tenths as wide as the greatest width of the carapace. First row of eyes procurved, the medians slightly nearer the subequal laterals. Second row of eyes broader than the first (11/8), narrower than the posterior row (11/13). Dorsal eye quadrangle broader than long (13/11), slightly narrowed in front, the anterior eyes larger. Clypeus low, about equal in height to the diameter of an anterior median eye. Chelicera armed with two subequal teeth on the lower margin, three on the upper. Labium slightly broader than long. Leg formula, 4123, the tibiae armed with 2–2–2 ventral spines, the last pair apical, the first two tibiae unarmed above, the last two with basal and submedian spines. Median apophysis of the male palpus lateral in position, structurally much as in typical members of *Lycosa.* Embolus long, the truncus free of the pars pendula for half the length.

GENOTYPE.—*Schizocosa unica* Gertsch and Wallace (1935, American Museum Novitates, No. 794, p. 9, Figs. 21 and 22).

This interesting species is much smaller than any known *Lycosa.* The presence of only two teeth on the lower margin of the chelicera

will separate it from species of that genus. Structurally the species approximates the European species of *Xerolycosa* and to a lesser degree *Tarentula*, genera in which the cheliceral armature is the same, but the pronounced differences in the genitalia are sufficient to separate it.

LYCOSA LATREILLE

Lycosa tigana Gertsch and Wallace

Figure 6

Lycosa tigana GERTSCH AND WALLACE, 1935, American Museum Novitates, No. 794, p. 14, Fig. 32.

FEMALE.—Total length, 15.10 mm.

Legs and body yellowish brown. Carapace with a wide median light stripe which is not sharply delimited from the dark sides and which extends between the posterior eyes. Sides of the carapace with a light marginal band, otherwise brown, covered with black pubescence. Abdomen light brown, with a dark basal hastate marking, but lacking any other distinctive maculations. Femora lighter in color than the sternum, coxae and joints of the legs. Labium and endites dark; the chelicerae black. Venter with a black area which is roughly triangular in shape, the apex directed caudad. Spining of the legs as usual except for the ventral surfaces of the first tibiae, the normal three pairs of spines present but short and stout, less than half as long as the distance separating the different pairs.

Carapace longer than wide (7.30 mm./5.30 mm.), of the usual height proportionately (2.70 mm.), the width of the head about three-fifths the width of the carapace (3.70 mm.). Dorsal eye quadrangle wider than long (24/19), the anterior eyes larger than the posteriors (9/8). Anterior row of eyes distinctly procurved (a line through the centers of the anterior median eyes passes through the upper one-sixth of the anterior laterals), the anterior median eyes twice as large as the laterals, closer to each other than to the laterals. Clypeus scarcely as high as the diameter of an anterior median eye. Chelicera, 3.30 mm. long, the furrows armed as usual. Labium as long as wide (1.30 mm.). Sternum longer than wide (2.90 mm./2.60 mm.). Leg formula, 4123.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	5.60	3.00	4.40	3.80	2.70	19.50 mm.
II	5.25	2.80	4.00	3.80	2.60	18.45 mm.
III	4.90	2.55	3.45	4.50	2.90	18.30 mm.
IV	6.20	3.00	5.10	6.20	3.40	23.90 mm.

RECORD.—Edinburg, Texas, July, 1935, female allotype (Stanley Mulaik).

The female of this species is described for the first time in this paper. As in the case of the male the female shows affinities to *Lycosa lenta* Hentz and several other closely related species. However, it can be separated from *lenta* by differences in the form of the epigynum and the spining of the first tibiae, and from other species by the

absence of bands on the legs as well as differences in the structure of the epigynum.

Lycosa ceratiola Gertsch and Wallace

Figure 8

Lycosa ceratiola GERTSCH AND WALLACE, 1935, American Museum Novitates, No. 794, p. 13, Fig. 27.

MALE.—Total length, 12.20 mm.

Color and markings essentially as in the female. Carapace with wide reddish-yellow maringal areas covered with white pubescence. Sides sparsely covered with white and black pubescence. Median dorsal stripe narrow caudally, widening abruptly about one diameter of a posterior lateral eye in front of the dorsal groove and enclosing dark spots, passing forward between the eyes where it is obscured by a thick matting of white hairs. Eyes incompletely surrounded by black; the clypeus dusky. Dorsum of the abdomen gray, covered with white pubescence and short black bristles. A hastate marking and two black spots are faintly indicated. Legs almost white beneath, somewhat darker above, the metatarsi and tarsi of the first and second pairs reddish brown, none of the legs with indications of annulations. Sternum, coxae, labium, maxillae and chelicerae black. Venter of the abdomen black. Anterior spinnerets twice as long and stouter than the posteriors.

Carapace longer than broad (7.20 mm./5.40 mm.), scarcely half as high as the width (2.40 mm.). Dorsal eye quadrangle wider than long (23/18), the anterior eyes larger than the posteriors (9/8). Width of the face, 3.10 mm. Anterior row of eyes shorter than the second row (15/20), slightly procurved, the medians twice as large as the lateral eyes, placed nearer the laterals. Clypeus about as high as the diameter of an anterior lateral eye. Chelicera, 3.00 mm. long, exclusive of the claw, 2.70 mm. wide. Lower margin of the furrow of the chelicera armed with three medium-sized teeth equal in size and equally spaced, the upper margin with three unequal teeth, unequally spaced, the median the largest. Labium longer than wide (1.20 mm./1.00 mm.), the basal excavations not reaching the middle. Sternum longer than wide (2.90 mm./2.60 mm.).

Leg formula, 4123, the spining normal, the ventral spines on the first and second tibiae not reduced in size as in the female.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	6.80	3.20	5.80	6.00	3.60	25.40 mm.
II	6.70	3.10	5.50	6.10	3.50	24.90 mm.
III	6.20	2.70	4.80	6.20	3.50	23.40 mm.
IV	7.50	2.90	6.60	8.40	4.00	29.40 mm.

RECORDS.—Eustis, Lake County, Florida, June 25, 1935, males and females. Jensen, Martin County, Florida, July 4, 1935, males and females. West Palm Beach, Palm Beach County, Florida, February 14, 1936, males and females. Male allotype from Lake County, Florida, June, 1935.

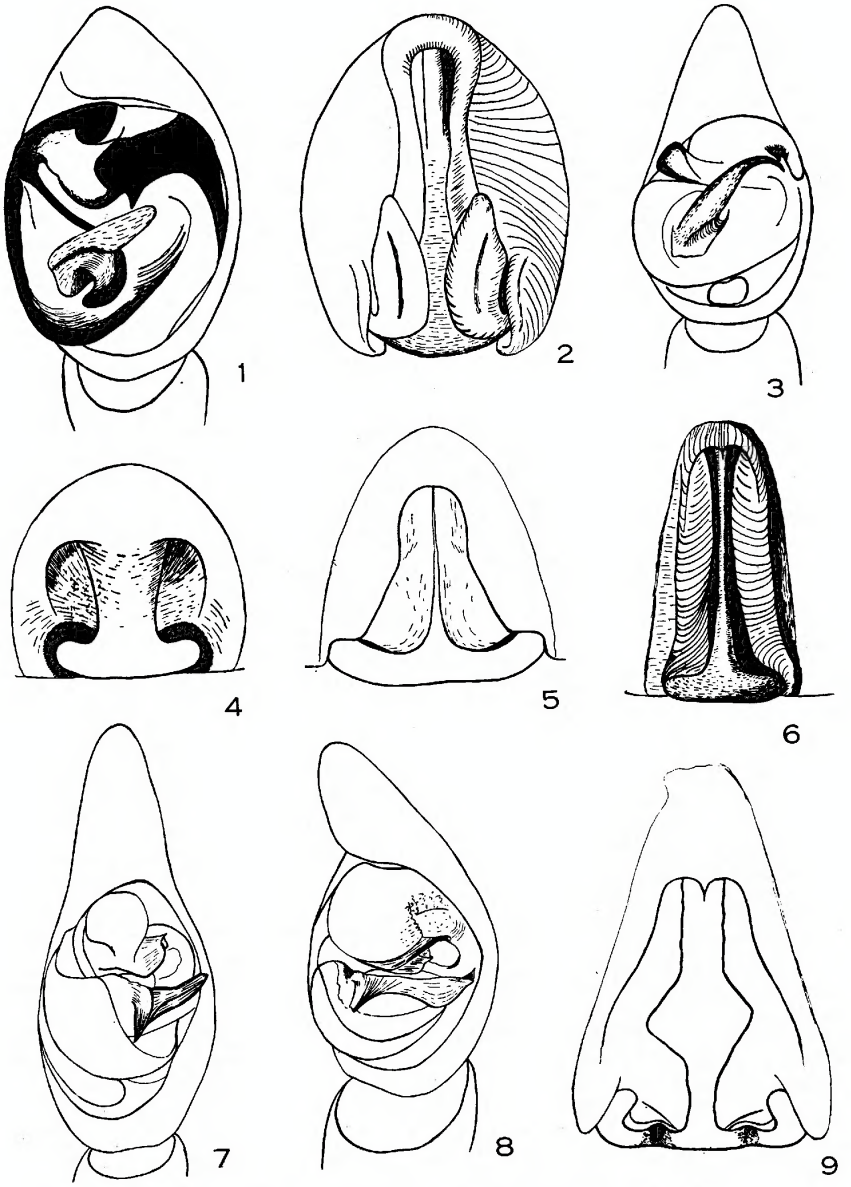

Fig. 1. *Pardosa sagei*, new species, ventral view of male palpus.
Fig. 2. Idem, epigynum of female.
Fig. 3. *Pardosa chiapasiana*, new species, ventral view of male palpus.
Fig. 4. *Lycosa iviei*, new species, epigynum of female.
Fig. 5. *Lycosa maasi*, new species, epigynum of female.
Fig. 6. *Lycosa tigana* Gertsch and Wallace, epigynum of female.
Fig. 7. *Lycosa osceola*, new species, ventral view of male palpus.
Fig. 8. *Lycosa ceratiola* Gertsch and Wallace, ventral view of male palpus.
Fig. 9. *Lycosa osceola*, new species, epigynum of female.

Females collected outside of the type locality show a certain amount of variation in the structure of the epigynum. In the epigynum of the holotype the median ridge is conspicuously expanded and the lateral depressions are correspondingly wide, whereas this expansion is totally lacking and the lateral depressions are quite narrow in specimens from Palm Beach, Martin and some parts of Lake Counties. In some specimens the epigyna are very similar to those of *Lycosa lenta* Hentz, in others the median ridge and lateral depressions are sinuous. The males appear to be quite free from variations. They can be distinguished from closely related species by differences in the pattern on the carapace and in the structure of the palpi.

Lycosa osceola, new species

Figures 7 and 9

MALE.—Total length, 20.00 mm.

Legs and body strikingly and densely covered with gray pubescence which is particularly well developed on the chelicerae, coxae, trochanters and margins of the carapace. Carapace reddish brown, without markings or pattern except for a few scattered dark spots. Eyes incompletely surrounded by black. Abdomen a dirty yellow-gray, unmarked, covered with a dense gray pubescence and numerous closely-set, black bristles. Third and fourth legs and femora and patellae of the first and second brownish yellow above; the distal halves of the first and second tibiae chestnut, the metatarsi and tarsi of these legs black, densely covered with gray hairs. All femora and the tibiae of the third and fourth legs yellow beneath. All joints of the palpi reddish yellow except the cymbia which are dark chestnut. Chelicerae, endites and coxae dark chestnut, almost black. Sternum black. Venter of the abdomen black.

Carapace longer than broad (11.90 mm./9.40 mm.), 3.20 mm. high. Width of the face, 5.40 mm. Dorsal eye quadrangle wider than long (3.20 mm./2.20 mm.), the anterior eyes larger than the posteriors (12/9). Anterior row of eyes straight, distinctly shorter than the second row (26/23), the lateral eyes slightly more than half as large as the medians, the eyes equidistantly spaced. Clypeus fully as high as the diameter of an anterior median eye. Chelicera, 4.80 mm. long, exclusive of the claw, 4.80 mm. wide. Lower margin of the furrow of the chelicera armed with three teeth, the medians equal in size and larger than the lateral; the upper margin with three unequal teeth, unequally spaced, the median the largest. Labium as long as wide (1.80 mm.), the basal excavations short. Sternum longer than wide (5.20 mm./4.10 mm.).

Leg formula, 4123, the spining as usual, the legs without indications of dark annulae.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	11.50	5.20	9.70	11.80	5.60	43.80 mm.
II	10.90	5.10	8.90	11.30	4.50	40.70 mm.
III	10.00	4.40	7.60	10.90	5.00	37.90 mm.
IV	11.90	4.90	9.60	15.30	5.80	47.50 mm.

FEMALE.—Total length, 29.00 mm.

Legs and body less strikingly covered with gray pubescence than in the male. Color and markings similar to the male. Abdomen grayish yellow above, not as dark as in the male. Legs stout.

Carapace longer than broad (14.20 mm./10.90 mm.), 4.80 mm. high. Width of the face, 7.30 mm. Posterior eye quadrangle wider than long (3.80 mm./2.80 mm.), the anterior eyes larger than the posteriors (13/10). Anterior row of eyes shorter than the second row (27/30), slightly procurved (a line passing through the centers of the median eyes passes through the upper third of the laterals), the lateral eyes more than half as large as the medians, the medians closer to each other than to the laterals. Chelicerae, 7.00 mm. long, exclusive of the claw, 7.00 mm. wide. Chelicerae armed as in the male. Labium as long as wide, the basal excavations less than half the length of the labium. Sternum longer than wide (5.60 mm./4.80 mm.).

Leg formula, 4123.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	10.90	5.80	8.50	8.90	3.90	38.00 mm.
II	10.30	5.50	7.80	8.80	4.20	36.60 mm.
III	9.40	5.00	6.80	9.30	4.50	35.00 mm.
IV	11.50	5.30	8.90	13.60	5.20	44.50 mm.

TYPE LOCALITY.—Male holotype, female allotype and paratypes from Eustis, Lake County, Florida, June 25, 1935 (H. K. Wallace). Paratypes of both sexes from Eustis, June 14, 1935 (W. Ivie, W. J. Gertsch, A. F. Carr, Jr. and H. K. Wallace). Paratypes of both sexes from Jensen, Martin County, Florida, July 4, 1935 (Louise and Irving J. Cantrall and H. K. Wallace). The holotype, allotype and paratypes are in the collection of The American Museum of Natural History. Other paratypes are in the collections of the University of Utah and of H. K. Wallace.

This fine species is equivalent to *Lycosa carolinensis* Walckenaer in size and is somewhat similar to *Lycosa lenta* Hentz and *Lycosa ceratiola* Gertsch and Wallace in appearance. It can be distinguished from *carolinensis* in the absence of black bands on the ventral surfaces of the legs and by differences in structure of the epigyna and palpi. It is distinct from *lenta* in size but more particularly by differences in the genitalia which are figured. *Lycosa osceola* is much larger than *ceratiola* and lacks the characteristic pattern on the carapace of that species.

Lycosa bellamyi, new species

Figure 14

FEMALE.—Total length, 13.00 mm. Carapace, 5.50 mm. long, 4.60 mm. wide.

Carapace dark reddish brown except for a median longitudinal paler band which, beginning between the eyes of the dorsal quadrangle, is as wide as the interval be-

tween the posterior eyes and narrows gradually to half that width at the caudal margin. Clothing of the carapace short black hairs with which are interspersed a few white ones. Chelicerae almost black, clothed with black hairs. Endites, sternum, coxae and legs reddish brown, concolorous with the pale dorsal stripe of the carapace clothed thinly with black hairs, the metatarsi and tarsi of the first two pairs of legs ventrally scopulate, the tarsi of the last two pairs with scopular hairs. Abdomen grayish brown above, marked with numerous small pale spots, clothed with black hairs, the base with a patch of white hairs. Venter of the abdomen dark brown to black, with two longitudinal rows of inconspicuous pale spots.

Carapace longer than broad, heavy, the width of the head at the large eyes of the second row, 2.50 mm. Sides of the carapace broadly rounded, the cephalic sutures obsolete, the median groove longitudinal. Sides of the carapace convex. First row of eyes narrower than the second (20/26), moderately procurved, the medians separated by three-fourths their diameter, half as far from the small laterals. Clypeus equal in height to the diameter of an anterior lateral eye. Eyes of the second row narrower than the third row (13/17), separated by scarcely a diameter (22/25). Third row of eyes about two-thirds as wide as the width of the carapace at that point (17/28), separated by scarcely three diameters. Median ocular quadrangle broader than long (17/12), narrowed in front (17/13), the anterior eyes larger. Chelicera with three large subequal teeth on the lower margin and three on the upper of which the median is larger. Labium as long as broad, half as long as the subparallel endites.

Leg formula, 4123. All tibiae and metatarsi with three pairs of ventral spines. First tibiae unarmed above, the fourth pair with strong basal and submedian dorsal spines.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	4.50	2.30	3.50	3.15	1.75	15.20 mm.
II	4.10	2.25				
III	3.80	1.80	2.75	3.35	1.80	13.50 mm.
IV	5.05	2.10	4.15	5.55	2.30	19.15 mm.

Type Locality.—Female holotype from Liberty County, Florida, April 12, 1935 (H. K. Wallace).

This species closely resembles *Lycosa frondicola* Emerton and *Lycosa huberti* Chamberlin in color and structure. It is distinct from these species in the characters of the epigynum.

Lycosa maasi, new species

Female.—Total length, 16.50 mm.

Carapace reddish brown, with a wide median dorsal pale stripe which widens in front of the dorsal groove, passes forward and narrows between the eyes of the third row but does not extend between the eyes of the second row. Sides of the carapace darkest just laterad of the longitudinal pale band, covered with dense black pubescence at that point, lighter in color at the margins and clothed with white pubescence. Coxae and trochanters provided with a dense covering of white hairs. Eyes incompletely surrounded by black areas; the clypeus chestnut in color. Abdomen dark,

densely clothed with black and gray hairs, with a basal hastate marking which is outlined in black, the caudal half with one pair of chevrons and indistinct black markings. Third and fourth legs indistinctly annulated. Legs reddish brown above, the femora darker. Venter light gray with a yellowish cast, bounded laterally by a longitudinal black line, the epigynum with a short longitudinal black area at each side. Sternum, coxae and trochanters bright amber in color, sparsely covered with black hairs and bristles. Chelicerae black. Labium and endites darker than the coxae, the anterior margins light.

Carapace longer than broad (8.90 mm./6.50 mm.), 2.80 mm. high in front, the height of the carapace from the sternum to the highest point, 4.40 mm. Width of the face, 4.20 mm. Dorsal eye quadrangle wider than long (26/19), the anterior eyes larger than the posteriors (10/8). Anterior row of eyes slightly procurved, a line passing through the centers of the anterior median eyes cutting the upper third of the anterior laterals, distinctly shorter than the second row (18/21), the lateral eyes somewhat smaller than the medians (3/4), the medians closer to each other than to the laterals. Clypeus as high as the diameter of an anterior median eye. Chelicera, 3.90 mm. long, exclusive of the claw, 3.60 mm. wide. Lower margin of the furrow of the chelicera armed with three equally spaced teeth, the inner two equal in size and larger than the outer one; upper margin with three unequal teeth, unequally spaced, the median the largest. Labium longer than wide (1.50 mm./1.30 mm.), the basal excavations short. Sternum longer than wide (3.80 mm./3.20 mm.). Leg formula, 4123.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	6.90	3.50	5.50	5.60	3.20	24.70 mm.
II	6.60	3.40	5.10	5.40	3.00	23.50 mm.
III	6.20	3.00	4.40	5.60	2.80	22.00 mm.
IV	7.80	3.20	6.20	8.70	3.50	29.40 mm.

Type Locality.—Female holotype from Campostela, Nayarit, Mexico, April 30, 1936 (Albert E. Maas).

Lycosa iviei, new species

Figure 4

Female.—Total length, 11.30 mm.

Carapace dark reddish brown in color, with a wide median longitudinal pale stripe which is slightly wider than the distance between the eyes of the posterior row. Median pale stripe somewhat constricted forward as it passes between the eyes of the third row but essentially equal in width behind to the margin, the caudal portion covered with white pubescence. Eye region thickly set with longer white hairs. Sides of the carapace dark chestnut, covered by black pubescence, with faint indications of submaringal light areas. Abdomen dark, with variegated pubescence and widely spaced black bristles, the base with a purplish hastate maculation which is bounded by light areas. Venter of the abdomen light, almost immaculate. Sternum and coxae light, amber in color, the endites and labium darker, the chelicerae chestnut. Spinnerets reddish brown. Legs dark reddish brown, with darker bands.

Carapace longer than broad (5.70 mm./4.40 mm.), 2.10 mm. high, the height

from the sternum to the top of carapace, 3.10 mm. Width of the head, 2.60 mm. Dorsal eye quadrangle broader than long (1.90 mm./1.50 mm.), the anterior eyes larger than the posteriors (8/6). First row of eyes slightly procurved (a line passing through the center of the medians cuts the upper third of the laterals), distinctly shorter than the second row (1.20 mm./1.60 mm.), the medians slightly larger than the lateral eyes, the eyes equally spaced. Clypeus approximately as high as the diameter of an anterior median eye. Chelicera, 2.30 mm. long, 2.40 mm. wide. Lower margin of the furrow of the chelicera armed with three equal teeth, the upper margin with three on the right side and two on the left in the holotype which are unequal in size. Labium as long as wide (0.90 mm.); sternum longer than wide (2.80 mm./2.30 mm.).

Leg formula, 4132, the tibiae with three pairs of ventral spines.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	4.30	2.10	3.60	3.20	2.00	15.20 mm.
II	4.20	2.20	3.20	3.10	2.00	14.70 mm.
III	4.90	1.90	2.80	3.30	2.00	14.90 mm.
IV	5.10	2.00	4.10	5.30	2.50	19.00 mm.

Type Locality.—Female holotype and paratypes from Nayarit, Mexico, June 5, 1935 (Albert E. Maas). The holotype and paratypes in the collection of The American Museum of Natural History; other paratypes in the collection of the junior author.

Lycosa oaxacana, new species

Figure 13

Female.—Total length, 14.50 mm. Carapace, 6.52 mm. long, 4.75 mm. wide.

Carapace very dark reddish brown, with a median longitudinal light brown stripe which begins between the dorsal eye quadrangle, enlarges behind the posterior eyes to the width of this row of eyes, and then evenly narrows to the caudal truncature where it equals the interval between the eyes of the posterior row. Sides of the carapace uniformly dark but with a conspicuous narrow marginal white seam which is clothed with white hairs. Pale dorsal stripe clothed with white hairs, the sides with black hairs. Eyes ringed with black, the low tubercles set with white hairs. Chelicerae dark reddish brown, clothed with long black hairs. Sternum light brown, the labium and the bases of the endites somewhat darker, the clothing erect black hairs. Legs and palpi brown, the femora darker beneath, streaked above, the terminal joints of the appendages paler, clothed with black hairs. Abdomen black on the sides, the dorsum with a broad pale band which encloses a median dark maculation for most of the length and which is broken up into chevrons in the caudal half. Venter of the abdomen uniform light yellowish brown. Clothing of the abdomen black hairs, the pale dorsal stripe with pubescence of a like color.

Carapace longer than broad, moderately broad in front, the eyes of the third row two-thirds as wide as the width of the carapace at that point (20/33). Sides of the pars cephalica evenly convex. Structure of the whole carapace in essential agreement with *Lycosa frondicola* Emerton. First row of eyes narrower than the second (13/17), weakly procurved, the medians separated by one-half their diameter, as far

from the smaller lateral eyes. Clypeus equal in height to slightly more than a diameter of an anterior lateral eye. Eyes of the second row separated by five-sevenths of their diameter. Third eye row broader than the second (17/21), the eyes separated by scarcely three diameters (13/5). Dorsal eye quadrangle broader than long (21/16), narrowed in front (21/17), the anterior eyes larger. Labium slightly longer than broad (53/50). Chelicera with three subequal teeth on the lower margin. Epigynum as figured.

Leg formula, 4123, the first and second tibiae unarmed above, the third and fourth with stout basal and submedian spines. Tibiae and metatarsi with three pairs of ventral spines. Tarsi and metatarsi of the first and second legs and tarsi of the third and fourth legs scopulate beneath throughout their length.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	4.80	2.30	3.85	4.10	2.50	17.55 mm.
II	4.50	2.50	3.75	4.30	2.50	17.55 mm.
III	4.20	2.15	3.25	4.65	2.30	16.55 mm.
IV	5.10	2.30	5.00	7.50	3.15	23.05 mm.

Type Locality.—Female holotype from Palomares, Oaxaca, Mexico, July, 1909 (Dr. A. Petrunkevitch).

Schizocosa Chamberlin

The genus *Schizocosa* was erected in 1904 by Dr. R. V. Chamberlin for three species of American lycosids which formed a discrete group distinguished from other members of the genus *Lycosa* by a number of important characters. The precipitous sides of the pars cephalica of the males was reminescent of *Pardosa* and had occasioned the description of some of them in this genus. There were, in addition, less important characters which often aid by their relative constancy in ascertaining the position of groups of species, such as the presence of a conspicuous brush of hairs on the anterior tibiae of the males and a rather characteristic color pattern. However, the most weighty characters were found in the genitalia. *Schizocosa* was based predominantly on the significant structure of the genitalia. The number of species belonging to the genus has been considerably increased during the last twelve years. With each addition it is becoming more and more evident that *Schizocosa,* like most of the genera of the Lycosidae, will grade gradually into *Lycosa* as this genus is used in the American sense. After careful study of the various small American species it is debatable whether *Lycosa avida* (Walckenaer) and closely related species can be withheld from *Schizocosa.* In this paper they are placed here tentatively in the belief that they deviate less far from this genus than from our other genera. A list of the species now

assigned to the genus is given below. *Arctosa incerta* Bryant seems to find its proper place in *Schizocosa.*

Schizocosa puebla Chamberlin

Schizocosa puebla CHAMBERLIN, 1925, Bull. Museum Comparative Zoölogy, LXVII, p. 231.

DISTRIBUTION.—Apparently known only from the male holotype from Albuquerque, New Mexico.

Schizocosa floridana Bryant

Schizocosa floridana BRYANT, 1934, Psyche, XLI, p. 40, Fig. 4.

FEMALE.—Total length, 7.70 mm. Carapace, 3.20 mm. long, 2.40 mm. wide.

Coloration essentially as in the male. Median longitudinal pale stripe of the carapace nearly as wide as the interval between the eyes of the posterior row, extending forward between these eyes, the sides of the stripe not parallel as in *crassipes*, invaded just in front of the median groove by a tongue of dark chromatism from each side, and abruptly narrowed to half the width on the posterior declivity. Sides of the carapace dark brown, with radiating black streaks, the pale spots on the side much less conspicuous and comparatively smaller than in the male. Underside of the carapace dull yellow, the labium dusky, the maxillae dusky at base, the sternum dusky on the sides, leaving a pale median stripe. Coxae with a few black spots. Legs light brown, the basal joints mottled and annulated with black, clothed with black hairs. Abdomen as in the male, the venter heavily marked with small black spots.

Carapace longer than broad, broader in front than in the male, the sides of the head gently convex. First row of eyes slightly procurved, the medians separated by their radius, as far from the subequal laterals. Clypeus equal in height to three-fourths the diameter of an anterior median eye. Second row of eyes two-thirds as broad as the head at that point (40/62), the eyes separated by scarcely a diameter (36/30). Posterior eyes separated by three diameters (70/23). Dorsal eye quadrangle broader than long (104/84), narrowed in front in the same ratio. Labium as broad as long. Chelicera with three subequal teeth on the lower margin. Epigynum agreeing in details with *Schizocosa crassipes.*

Leg formula, 4132. Spines as in *saltatrix* or *crassipes.*

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	2.20	1.30	1.90	1.73	1.05	8.18 mm.
II	2.10	1.20	1.70	1.60	1.05	7.65 mm.
III	2.10	1.05	1.60	2.00	1.08	7.83 mm.
IV	2.85	1.25	2.50	3.40	1.50	11.50 mm.

RECORDS.—Levy County, Florida, April 28, 1934, females, one of which is designated as the allotype (H. K. Wallace). Escambia County, April 7, 1934, male and female (H. K. Wallace). Alachua County, March 30, 1934, males and females (H. K. Wallace).

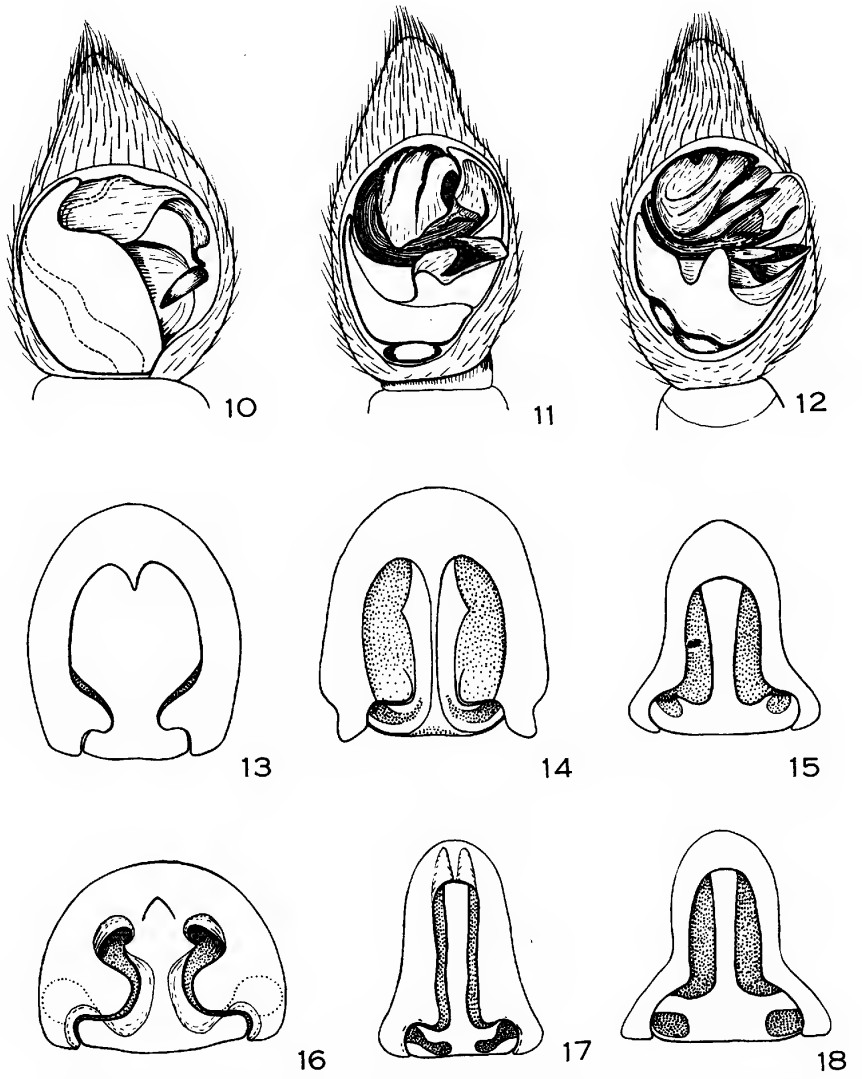

Fig. 10. *Arctosa paraguensis*, new species, ventral view of male palpus.
Fig. 11. *Schizocosa segregata*, new species, ventral view of male palpus.
Fig. 12. *Schizocosa retrorsa* (Banks), ventral view of male palpus.
Fig. 13. *Lycosa oaxacana*, new species, epigynum of female.
Fig. 14. *Lycosa bellamyi*, new species, epigynum of female.
Fig. 15. *Schizocosa segregata*, new species, epigynum of female.
Fig. 16. *Schizocosa kaieteurensis*, new species, epigynum of female.
Fig. 17. *Schizocosa episima* (Chamberlin), epigynum of female.
Fig. 18. *Schizocosa duplex* Chamberlin, epigynum of female.

This species differs from *Schizocosa crassipes* (Walckenaer) in its smaller size, in the irregular median band on the carapace, and in having the legs proportionately shorter.

Schizocosa crassipes (Walckenaer)

Lycosa crassipes WALCKENAER, 1837, 'Insectes Aptères,' I, p. 323.
Schizocosa crassipes PETRUNKEVITCH, 1911, Bull. American Museum Nat. Hist., XXIX, p. 578.

DISTRIBUTION.—This common form is widely distributed in the United States and Canada east of the Rocky Mountains. Specimens from Austin, Texas, collected by T. H. Montgomery, are much paler than those from the eastern woods and the males lack the black brush on the first tibiae.

Schizocosa saltatrix (Hentz)

Lycosa saltatrix HENTZ, 1844, Jour. Boston Soc. Nat. Hist., IV, p. 387.
Schizocosa saltatrix CHAMBERLIN, 1908, Proc. Acad. Nat. Sci. Philadelphia, p. 215, Pl. XVI, figs. 2 and 4.

DISTRIBUTION.—This species has the same range as *crassipes*. The following western records are of interest: Pikes Peak Canyon, Colorado, July 21, 1908, female (F. E. Lutz). Bear Creek Canyon, south of Boulder, Colorado, March 21, 1934, female (H. G. Rodeck). Fish Lake, Sevier County, Utah, June 22, 1930, immature female (W. J. Gertsch).

Schizocosa duplex Chamberlin

Figure 18

Schizocosa duplex CHAMBERLIN, 1925, Bull. Museum Comparative Zoölogy LXVII, p. 231.

RECORDS.—Burlington, North Carolina, June 8, 1933, female (H. K. Wallace). Lake James, North Carolina, July 5, 1934, female (H. K. Wallace). Forestville, Maryland, June, male (Irving Fox). Halifax County, Virginia, June 17, 1935, male (W. J. Gertsch). Crossville, Tennessee, July 15, 1933, female (W. J. Gertsch). Ithaca, New York, male. Liberty County, Florida, April 10, 1935, two males, two females (H. K. Wallace).

The specimens described under this name in 1935, by Miss E. B. Bryant, belong in *Schizocosa episima* (Chamberlin)

Schizocosa episima (Chamberlin)

Figure 17

Lycosa episima CHAMBERLIN, 1924, Proc. U. S. National Museum, LXIII, p. 30, Pl. VI, fig. 46.

Schizocosa duplex BRYANT, 1935, Psyche, XLII, p. 80, Pl. V, fig. 11. (not *Schizocosa duplex* Chamberlin)

RECORDS.—Levy lake, Florida, March 14, 1934, female (H. K. Wallace). Lake Harris, Lake County, Florida, June 14, 1935, male and females (W. Ivie, H. K. Wallace and W. J. Gertsch). Escambia County, Florida, April 6, 1934, male (H. K. Wallace).

Schizocosa incerta (Bryant)

Artosa incerta BRYANT, 1934, Psyche, XLI, p. 39, Figs. 2 and 3.

RECORDS.—Alachua County, Florida, April 14, 1934, males and females (H. K. Wallace). Idem, May 8, 1934, males and females (H. K. Wallace).

Schizocosa bilineata (Emerton)

Pardosa bilineata EMERTON, 1885, Trans. Connecticut Acad. Arts and Sci., VI, p. 496, Pl. XLIX, fig. 4.

Schizocosa bilineata CHAMBERLIN, 1908, Proc. Acad. Nat. Sci. Philadelphia, p. 218, Pl. XVI, fig. 3.

RECORDS.—Woods Hole, Massachusetts, July 4, 1901, male and female (Britcher). Norwalk, Connecticut, May 27, 1933, males and females (W. J. Gertsch). Idem, June 4, 1935, females (W. J. Gertsch). Washington County, Pennsylvania, female (W. W. Long). New Lenox, Illinois, May 25, 1936, male (D. C. Lowrie). Halifax County, Virginia, June 17, 1935, female (W. J. Gertsch). Weaverville, Buncombe County, North Carolina, May 26, 1934, females (A. Carr).

Schizocosa celerior Chamberlin

Schizocosa celerior CHAMBERLIN, 1910, Ent. News Philadelphia, XXI, Pl. I, fig. 1.

RECORDS.—Tucson, Arizona, July, 1935, two females (P. Steckler). St. George, Washington County, Utah, June 12, 1934, males, females (W. Ivie).

Schizocosa crassipalpis (Emerton)

Lycosa crassipalpis EMERTON, 1909, Trans. Connecticut Acad. Arts and Sci., XIV, p. 206, Pl. VI, fig. 3.

DISTRIBUTION.—Apparently known only from Massachusetts and Maine.

Schizocosa avida (Walckenaer)

Lycosa avida Walckenaer, 1836, 'Insectes Aptères,' I, p. 322.

Distribution.—This is one of the commonest American lycosids and is found throughout the United States, in Canada, and in northern Mexico.

Schizocosa segregata, new species

Figures 11 and 15

Male.—Total length, 4.60 mm. Carapace, 2.60 mm. long, 1.90 mm. wide.

Carapace with a median longitudinal yellow band which begins between the dorsal eye quadrangle, is invaded by the dark rings of the eyes of the posterior row and then continues caudad to the margins. Sides of the dorsal pale stripe nearly parallel, slightly narrowed on the posterior declivity, the width in front equal to the interval between the posterior eyes. Clothing of the dorsal stripe pale hairs and a few erect black bristles. Sides of the carapace dark brown to black, with a submarginal pale band which is made up of four discrete pale spots and with a marginal black band. Clothing of the sides fine black hairs but with pale ones on the submarginal band of spots. Eyes ringed with black, the dorsal quadrangle with long gray hairs. Labium dusky, the endites pale yellow, the sternum pale yellow, with a black smudge opposite each coxa, the clothing of fine erect black hairs sparse. Legs pale yellowish brown but the basal joints thickly mottled or ringed with brown, the distal joints pale. First tibiae black, clothed with a thin brush of coarse black hairs. Abdomen black or dark brown on the sides, the dorsum with a broad paler stripe of reddish color which encloses black spots. Venter of the abdomen pale yellowish brown, with a few small dark spots.

Carapace longer than broad, narrowed in front, the sides of the head precipitous, the width of the head at the first eye row, 0.92 mm. First row of eyes moderately procurved, the medians separated by a radius from the slightly smaller lateral eyes and quite as far from each other. Eyes of the second row large, separated by scarcely their diameter (37/30), the row occupying the width of the head. Eyes of the posterior row separated by twice their diameter. Dorsal quadrangle broader than long (97/88), narrowed in front in the same ratio, the anterior eyes larger (37/29). Clypeus equal in height to a radius of the anterior lateral eye. Chelicera with three subequal teeth on the lower margin. Labium as long as broad.

Leg formula, 4123. Spines as usual in the genus.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.97	1.05	1.65	1.73	1.04	7.44 mm.
II	1.85	0.95	1.43	1.65	1.00	6.88 mm.
III	1.80	0.82	1.30	1.77	0.95	6.64 mm.
IV	2.35	0.95	2.06	2.75	1.15	9.26 mm.

Palpus as in figure 11, the median apophysis agreeing in detail with that of *Schizocosa duplex* Chamberlin but the distinct horn present in the distal division of the bulb in that species lacking in *segregata.* Embolus much shorter than in *Schizocosa saltatrix* (Hentz).

Female.—Total length, 7.70 mm. long, 3.20 mm. long, 2.40 mm. wide.

Coloration as in the male. Median longitudinal pale stripe of the carapace nearly as wide as the interval between the eyes of the posterior row, extending forward between the eyes and narrowed somewhat behind on the posterior declivity. Legs moderately long but the first tibiae lacking the brush of black hairs present in the male. Structure essentially as in the male but the sides of the pars cephalica less precipitous. Epigynum as in figure 15, structurally very near that of *avida*.

TYPE LOCALITY.—Male holotype, female allotype and male and female paratypes from Levy County, Florida, taken April 28, 1934 by H. K. Wallace.

Schizocosa retrorsa (Banks)

Figure 12

Pardosa retrorsa BANKS, 1911, Proc. Acad. Nat. Sci. Philadelphia, p. 453, Pl. XXXIV, figs. 3 and 6.

MALE.—Total length, 6.40 mm. Carapace, 3.20 mm. long, 2.25 mm. wide.

Carapace dark brown, with a median longitudinal yellow band which extends narrowly forward between the eyes of the first row, is somewhat enlarged just behind the posterior eye row and then continues caudad to the margin, the width of the caudal portion of the band half the interval between the posterior eyes. Sides of the carapace with a submarginal pale band made up of four light spots. Clothing of the carapace black and white hairs. Sides of the carapace covered chiefly with black hairs. Sternum pale yellowish brown, clothed with white hairs, the labium concolorous. Coxae and endites dull yellow, set with erect black hairs. Legs dusky brown, paler distally, the first tibiae clothed with black hairs which form a distinct brush, the hairs thickest on the ventral surface, the other joints of the first and other legs clothed with black hairs. Femora faintly annulated in black. Abdomen black on the sides, the dorsum with a pale brown longitudinal stripe the whole length which encloses a darker basal hastate maculation, the venter pale.

Carapace longer than broad, relatively narrow in front, the sides of the head declining abruptly. Width of the head at the second eye row, 1.40 mm. Pars cephalica slightly higher than the pars thoracica, the carapace essentially equal in height caudad to the longitudinal median groove. First row of eyes weakly procurved, the median separated by three-fourths their diameter, three-fifths their diameter from the subequal lateral eyes. Clypeus equal in height to scarcely a diameter of the anterior median eyes. Second row of eyes broader than the first (88/64), the eyes separated by their diameter. Eyes of the posterior row separated by scarcely three diameters. Dorsal eye quadrangle broader than long (103/86), narrowed in front (130/88), the anterior eyes larger. Chelicera with three subequal teeth on the lower margin of the furrow. Labium as broad as long.

Leg formula, 4123. Spines as usual in the genus. Palpus as figured.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	2.60	1.20	2.00	2.13	1.40	9.33 mm.
II	2.25	1.10	1.75	1.95	1.32	8.37 mm.
III	2.25	0.97	1.60	2.10	1.27	8.19 mm.
IV	3.10	1.10	2.50	3.47	1.75	11.92 mm.

DISTRIBUTION.—Illinois. Georgia. North Carolina. Tennessee. Virginia. Pennsylvania.

The male described above, from Waukegan Flats, Illinois, taken August 26, 1936, by Mr. D. C. Lowrie, has the first tibiae provided with a brush of black hairs. In examples from North Carolina the amount of pubescence is much less, usually no more conspicuous than in *avida*.

Schizocosa minnesotensis (Gertsch)

Lycosa minnesotensis GERTSCH, 1934, American Museum Novitates, No. 726, p. 4, Fig. 2.

DISTRIBUTION.—Minnesota. Alberta. Idaho.

Schizocosa kaieteurensis, new species

Figure 16

FEMALE.—Total length, 5.50 mm.

Carapace brown on the sides, with an irregular submarginal pale stripe on each side and a marginal black seam, the dorsum with a broad median longitudinal pale yellow stripe which begins between the eyes of the dorsal quadrangle, continues caudad half the distance to the median groove, is somewhat narrowed at that point, and then narrows back to the caudal margin. Eyes broadly ringed with black. Clothing of the carapace fine black hairs, the pale areas and the dorsal ocular quadrangle with white hairs. Chelicerae dark brown. Sternum and coxae pale yellow, the endites and labium dusky, all clothed with erect black hairs. Legs light yellowish brown, the distal joints paler, the femora and tibiae with dark annulae. Abdomen dusky on the sides, pale above, the venter pale yellow.

Carapace longer than broad (2.95 mm./2.03 mm.), rather broad in front, the width of the head at the second eye row, 1.40 mm. Sides of the pars cephalica rather steeply declining, essentially as in *Schizocosa tristani* (Banks). Eyes of the anterior row narrower than the second (55/95), procurved, the medians separated by scarcely a diameter, a little nearer the smaller lateral eyes. Eyes of the second row separated by three-fourths their diameter. Eyes of the posterior row eleven-fourteenths as wide as the carapace at that point (115/140), separated by two and one-third times their diameter (3/7). Dorsal eye quadrangle broader than long (115/90), narrowed in front in about the same ratio, the anterior eyes larger. Clypeus equal in height to the diameter of an anterior median eye. Chelicera with three subequal teeth on the lower margin. Labium as broad as long.

Leg formula, 4132. Spines long, all the tibiae and metatarsi with three pairs on the ventral surface. First two tibiae without dorsal spines, the last two with a basal and a submedian spine.

	FEMUR	PATELLA	TIBIA	METATARSUS	TARSUS	TOTAL
I	2.15	1.00	1.80	1.60	1.13	7.68 mm.
II	1.90	0.94	1.60	1.58	1.05	7.07 mm.
III	1.98	0.87	1.48	1.90	1.10	7.33 mm.
IV	2.60	1.05	2.35	2.95	1.35	10.30 mm.

TYPE LOCALITY.—Female holotype from Kaieteur, British Guiana, August 8, 1911 (F. E. Lutz).

This spider closely resembles *Schizocosa tristani* (Banks) and the epigynum is suggestive of that species. It is, however, considerably smaller and less strongly marked with black, the sternum completely lacking a conspicuous central maculation as in *tristani*.

Schizocosa tristani (Banks)

Lycosa tristani BANKS, 1909, Proc. Acad. Nat. Sci. Philadelphia, p. 218, Pl. v, fig. 4, Pl. vi, fig. 42.

Pardosa albopilosa PETRUNKEVITCH, 1925, Trans. Connecticut Acad. Arts and Sci., XXVII, p. 174, fig. 93.

Schizogyna tristani BANKS, 1929, Bull. Museum Comparative Zoölogy, LXIX, p. 83.

RECORDS.—Turrialba, Costa Rica (Tristan) (Banks, 1909), type locality of *Lycosa tristani* Banks. Panama City, Panama (Petrunkevitch, 1925), type locality of *Pardosa albopilosa* Petrunkevitch. Barro Colorado Island, Canal Zone (Banks, 1929). Idem, numerous males and females taken near the lake shore with the aid of a head lamp in February and March, 1936 (Gertsch). Macato, Venezuela, one male. Paramaribo, Dutch Guiana, one male. British Guiana, male and female (Leo E. Miller). Potaro Lodge. British Guiana, August 18, 1911, male and female (F. E. Lutz).